

WHAT IS CLAIMED IS:

1. A network server system for efficiently processing requests for information assets stored upon a set of storage drives, wherein the requests are received via a communicatively coupled network link, the server system comprising:

5 an internal network communicatively coupling nodes within the network data server system;

a supplemental processor node communicatively coupled to the internal network and comprising a general purpose processor and operating system, and wherein the supplemental processor supports executing application programs;

10 a data storage node communicatively coupled to the internal network, the data storage node comprising storage media and conversion circuitry for packaging retrieved data from the storage media to a format for transmission over the internal network; and

15 an external network access node supporting network connections between the network server system and client nodes via an external network, the external network interface comprising:

an external network interface comprising an external network interface engine for executing data transfers between the external network access node and the external network,

20 an internal network interface comprising an internal network interface engine for executing data transfers between the external network access node and the internal network, and

25 one or more event engines for executing information asset transfers between the data storage device and the external network in accordance with contexts, maintained by the external network access node, describing a present state of executing information asset transfers performed by the one or more event engines.

2. A method for processing requests for information assets stored upon a set of data storage drives by a network server system, wherein the requests are received via a communicatively coupled external network link, the method comprising the steps of:

- receiving, by an external network access node via the external network link, a
5 request for an information asset;
- creating, by the external network access node, a context for the request wherein the context includes a buffer identification and a processing engine on the external network access node assigned to execute the request;
- submitting, by the external network access node, a request for data from a storage
10 node connected to the external network access node by an internal network; and
- receiving, by the external network access node from the storage node, data corresponding to the request for data from the storage node, and storing the received data within memory on the external network access node corresponding to the buffer identification, wherein data transferred from the storage node to the receiving external
15 network node bypasses application memory space on a general processor node; and
- transmitting, by the external network access node, the data stored within memory corresponding to the buffer identification, over the external network link.

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3. A network server system for efficiently processing requests for information assets stored upon a set of storage drives, wherein the requests are received via a communicatively coupled network link, the server system comprising:

a supplemental processor node;

5 a network interface node comprising:

a network interface communicatively coupled to the network link and configured to receive requests from clients via the network link;

10 delegation logic facilitating: associating a request type with at least a portion of a request, identifying a handler from a set of processing elements for executing at least the portion of the request based upon the request type, and creating a data structure linking at least the portion of the new request to the identified handler processor; and

15 a data path from the set of storage drives to the network interface, the data path facilitating data transfers between the set of storage drives and the external data access node containing the set of processing elements that bypass the supplemental processor node.